

Response and Amendment
Application No. 10/750,214
Filing Date: January 2nd, 2004
Amdt. dated: August 24th, 2006
Reply to Office Action of: March 24th, 2006
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Amendments to the Claims:

All of the claims are set forth herein with the current status of each noted and the currently amended claims showing the changes made therein. This listing of claims will replace all prior versions and listings of claims in the application:

Please cancel withdrawn claims 8-20.

Listing of Claims:

1. (Original): A damped electromagnetic inductor device, comprising:
at least one primary coil formed of a continuous conductor having first and second terminal ends, each primary coil having a helical winding section wound around an interior space, said at least one primary coil capable of producing magnetic field lines, wherein the interior space is intersected by said primary coil magnetic field lines; and

at least one secondary closed loop formed of a continuous conductor and being electrically insulated from said primary coil, said secondary closed loop having a section wound around said interior space, said secondary closed loop capable of producing eddy currents in response to said primary coil magnetic field lines.

2. (Original): The damped electromagnetic inductor device of claim 1, wherein said at least one secondary closed loop comprises a single closed loop of conductive wire disposed around the exterior of said at least one primary coil.

3. (Original): The damped electromagnetic inductor device of claim 1, wherein said at least one secondary closed loop comprises a single closed loop of conductive wire disposed within the interior of said at least one primary coil.

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4. (Original): The damped electromagnetic inductor device of claim 1, wherein said at least one secondary closed loop comprises a single closed cylindrical loop made from a conductive sheet disposed within the interior of said at least one primary coil.

5. (Original): The damped electromagnetic inductor device of claim 1, wherein said at least one secondary closed loop comprises a single closed cylindrical loop made from a conductive sheet disposed around the exterior of said at least one primary coil.

6. (Original): The damped electromagnetic inductor device of claim 1, further comprising:

a magnetically permeable frame including a magnetically permeable core dimensioned to fit within said interior space, said core carrying a frame member extending out of the interior space and defining a flux path for said primary coil magnetic field lines.

7. (Original): The damped electromagnetic inductor device of claim 6, wherein said magnetically permeable frame comprises first and second "E" frames each having a first outer leg opposing a second outer leg, with a central core disposed there between, and wherein said central core carries said primary coil and said secondary closed loop.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Cancelled)

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

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15. (Cancelled)
16. (Cancelled)
17. (Cancelled)
18. (Cancelled)
19. (Cancelled)
20. (Cancelled)
21. (New): The damped electromagnetic inductor device of claim 6, wherein said magnetically permeable frame is made of iron.
22. (New): The damped electromagnetic inductor device of claim 6, wherein said magnetically permeable frame comprises first and second encapsulating flux conductive frames,
said first flux conductive frame having a substantially hemispherical or bowl-shaped outer wall encircling an annular interior space that surrounds a first central core projecting into the frame's interior, said central core being aligned along a central axis and terminating in a distal core end;
- said second flux conductive frame also having a substantially hemispherical or bowl-shaped outer wall encircling an annular interior space that surrounds a second central core projecting into the second frame's interior, said second central core being aligned along a central axis and terminating in a second distal core end;
- wherein said first flux conductive frame and said second flux conductive frame are releasably juxtaposed together such that the first and second outer walls engage one another

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to define an enclosed interior volume dimensioned to receive said first coil and said second coil;

 said first and second central cores being substantially coaxially aligned to carry said primary coil and said secondary closed loop; and

 wherein said first central core's distal end engages said second central core's distal end to provide a substantially continuous flux path through said first and second central cores and through said first frame's wall and said second frame's wall.

23. (New): The damped electromagnetic inductor device of claim 22, wherein said first and second encapsulating flux conductive frames define substantially continuous outer wall surfaces meeting in a tight seam, and

 wherein said primary coil's first and second terminals comprise flexible conductors brought outside of the enclosed interior volume through at least a first aperture in one of said first frame's wall and said second frame's wall.

24. (New): The damped electromagnetic inductor device of claim 22, wherein said magnetically permeable frame is made of iron.

25. (New): The damped electromagnetic inductor device of claim 1, further comprising:

 a magnetically permeable core dimensioned to fit within said interior space, said core carrying (a) said primary coil's magnetic flux and (b) flux induced from eddy currents induced in said closed loop when current flows through said primary coil.

26. (New): The damped electromagnetic inductor device of claim 25, wherein said magnetically permeable core is made of iron.

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27. (New): The damped electromagnetic inductor device of claim 2, further comprising:

a magnetically permeable core dimensioned to fit within said interior space, said core carrying (a) said primary coil's magnetic flux and (b) flux induced from eddy currents induced in said closed loop when current flows through said primary coil.

28. (New): The damped electromagnetic inductor device of claim 27, wherein said magnetically permeable core is made of iron.

29. (New): The damped electromagnetic inductor device of claim 3, further comprising:

a magnetically permeable core dimensioned to fit within said interior space, said core carrying (a) said primary coil's magnetic flux and (b) flux induced from eddy currents induced in said closed loop when current flows through said primary coil.

30. (New): The damped electromagnetic inductor device of claim 29, wherein said magnetically permeable core is made of iron.

31. (New): The damped electromagnetic inductor device of claim 4, further comprising:

a magnetically permeable core dimensioned to fit within said interior space, said core carrying (a) said primary coil's magnetic flux and (b) flux induced from eddy currents induced in said closed loop when current flows through said primary coil.

32. (New): The damped electromagnetic inductor device of claim 31, wherein said magnetically permeable core is made of iron.

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33. (New): The damped electromagnetic inductor device of claim 5, further comprising:

a magnetically permeable core dimensioned to fit within said interior space, said core carrying (a) said primary coil's magnetic flux and (b) flux induced from eddy currents induced in said closed loop when current flows through said primary coil.